Analysis of July Electricity Loads

The following presents several indicators of peak demand reduction between 2000 and 2001.

Loads Adjusted for Weather and Growth

The table below shows actual data and weather adjusted data for the ISO control area. The actual loads include three factors: (1) weather; (2) economic growth; and (3) conservation. The purpose of this analysis is to remove the weather and economic growth factors in order to see the impact of conservation.

	Total Conservation in the ISO Area							
	Monthly Peak Demand (MW)				Monthly Energy (MWh)			
	July							
	2000	2001	Diff	% Diff	2000	2001	Diff	% Diff
(1) Actual Metered Load	43,334	40,241	-3,093	-7.1	21,919,216	20,975,957	-943,259	-4.3
(2) Load Adjusted for Weather	40,864	37,144	-3,720	-9.1	22,484,306	21,687,643	-796,663	-3.5
(3) Load Adjusted for Growth and Weather	41,599	37,144	-4,455	-10.7	22,889,024	21,687,643	-1,201,381	-5.2

The actual metered load (line 1) is derived from ISO control area hourly loads published on the ISO OASIS site. Peak demand in July 2001 was 40,241 MW—3,093 MW lower than in July 2000.

Peak and energy data for the month of July are combined with temperature data for July to estimate temperature-sensitivity of load. These temperature sensitivities are applied to normal July temperatures to develop loads adjusted for weather differences (line 2).

To account for underlying economic growth, a growth factor derived form employment data is applied to weather adjusted 2000 values (line 3).

Comparison of Similar Cool Days

The table below shows temperatures and peak demand comparing a relatively cool day in 2000 to a similarly cool day in 2001.

		3 Station Average Temperature		
Date	Day of Week	Actual	Normal	ISO Peak Demand (MW)
7/26/2000	Wednesday	78	81.7	40,220
7/26/2001	Thursday	78	81.7	35,833

The peak demand for the ISO control area for Wednesday July 26, 2000, was 40,220 MW. For Thursday 2001 with similar temperatures, the peak demand was only 35,833 MW—a difference of 4,387 MW or 11 percent.

Other Items

- In July 2000 there were 8 days with loads greater than 40,000 MW
- In July 2001 there were only 2 days with loads greater than 40,000 MW.

- There were 6 Stage 1 and 2 Stage 2 Emergencies in July 2000
- There were 2 Stage 1 and 2 Stage 2 Emergencies in July 2001.